



STEWART

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West Ellerbee Creek Multi-Use Path Connector

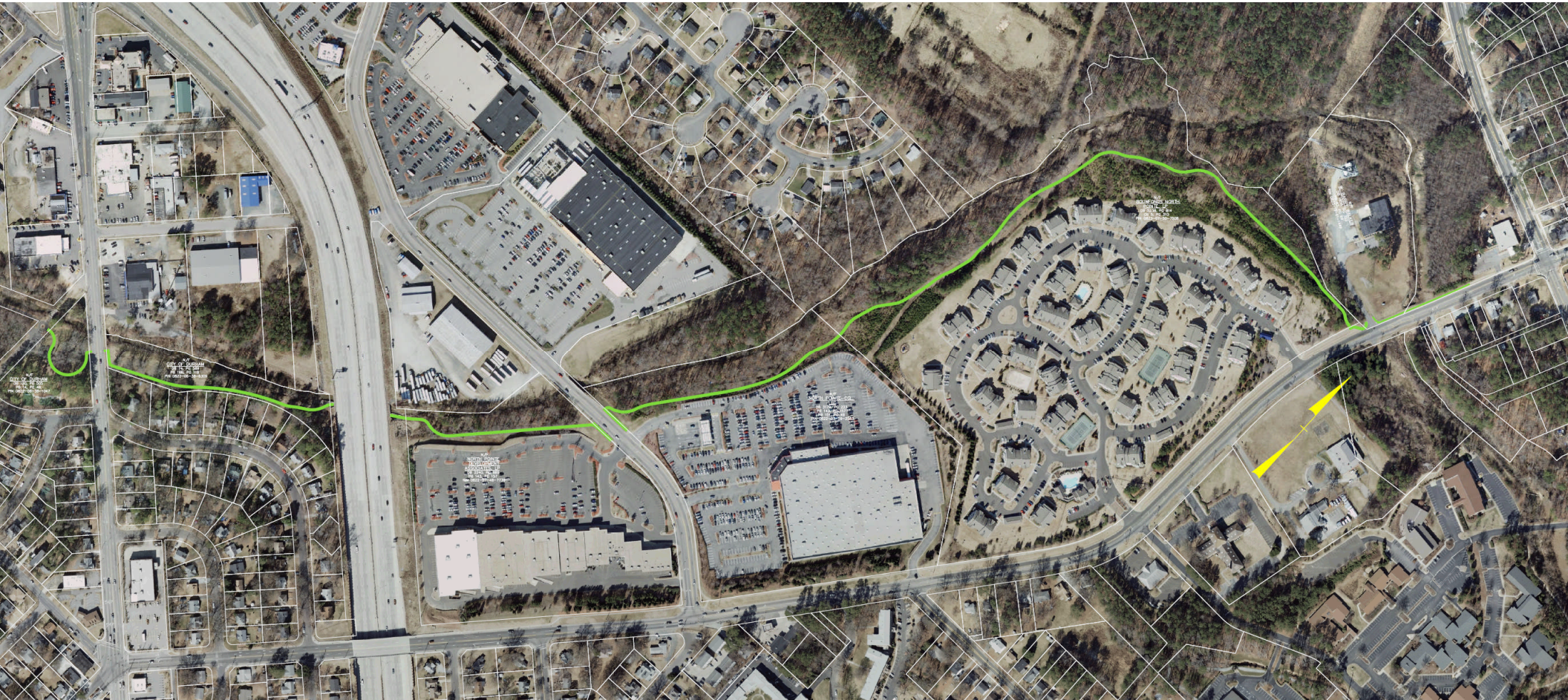
February 2014

- Introduction
- Project Status
 - Design Status
 - Existing Easement Status
 - Property Acquisition Status
- Alternative Evaluation
- Closing

- Design Complete
- Durham Site-Plan and review complete and approved
- Water Quality Permits Acquired

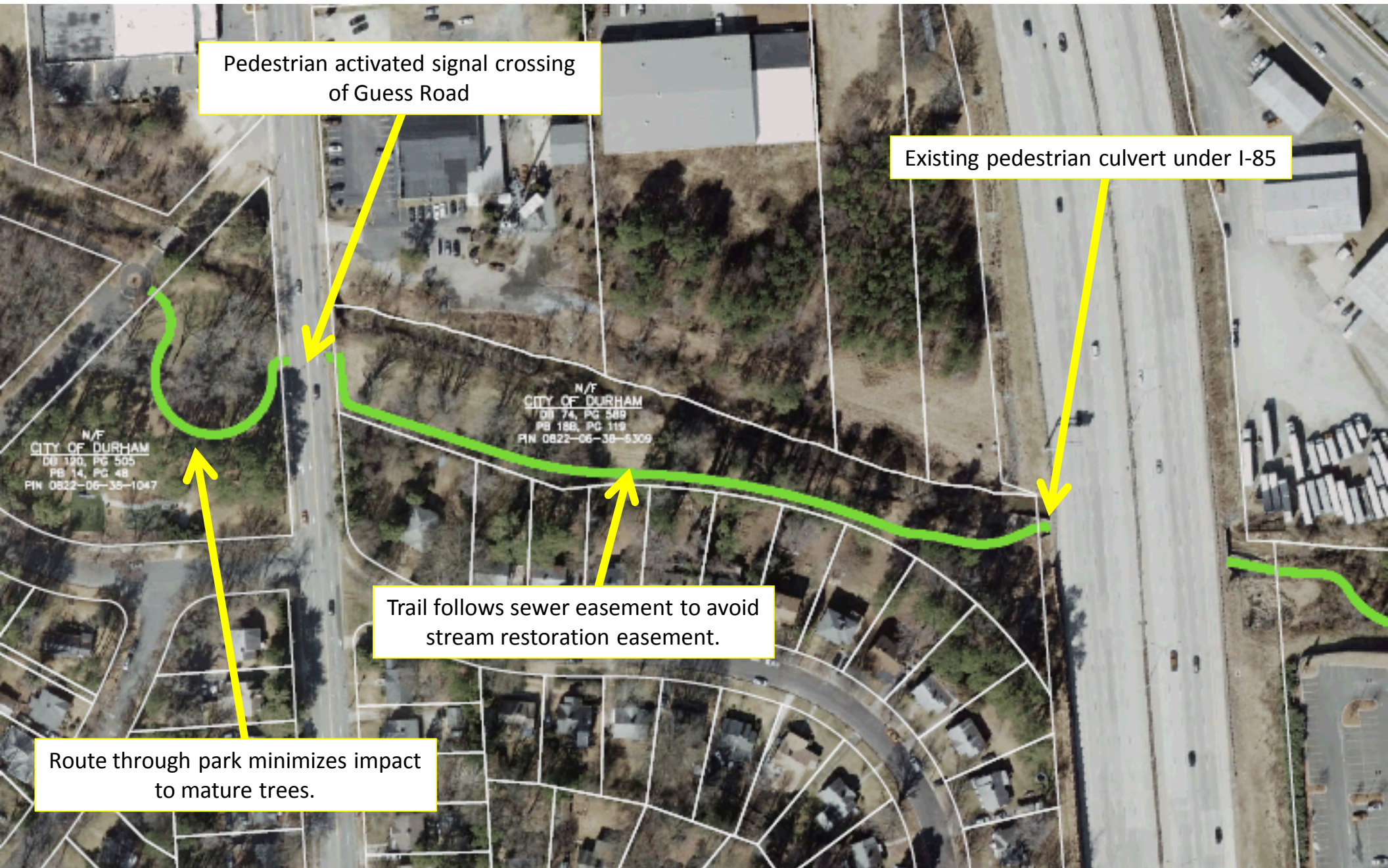
Alignment

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Alignment – Westover to I-85

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Pedestrian activated signal crossing of Guess Road

Existing pedestrian culvert under I-85

Trail follows sewer easement to avoid stream restoration easement.

Route through park minimizes impact to mature trees.

Alignment –I-85 to Costco

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Existing pedestrian culvert under I-85

New traffic signal with pedestrian accommodation

Retaining walls range in height from 15 to 20' high

Trail Visualization

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Alignment – Costco to Stadium

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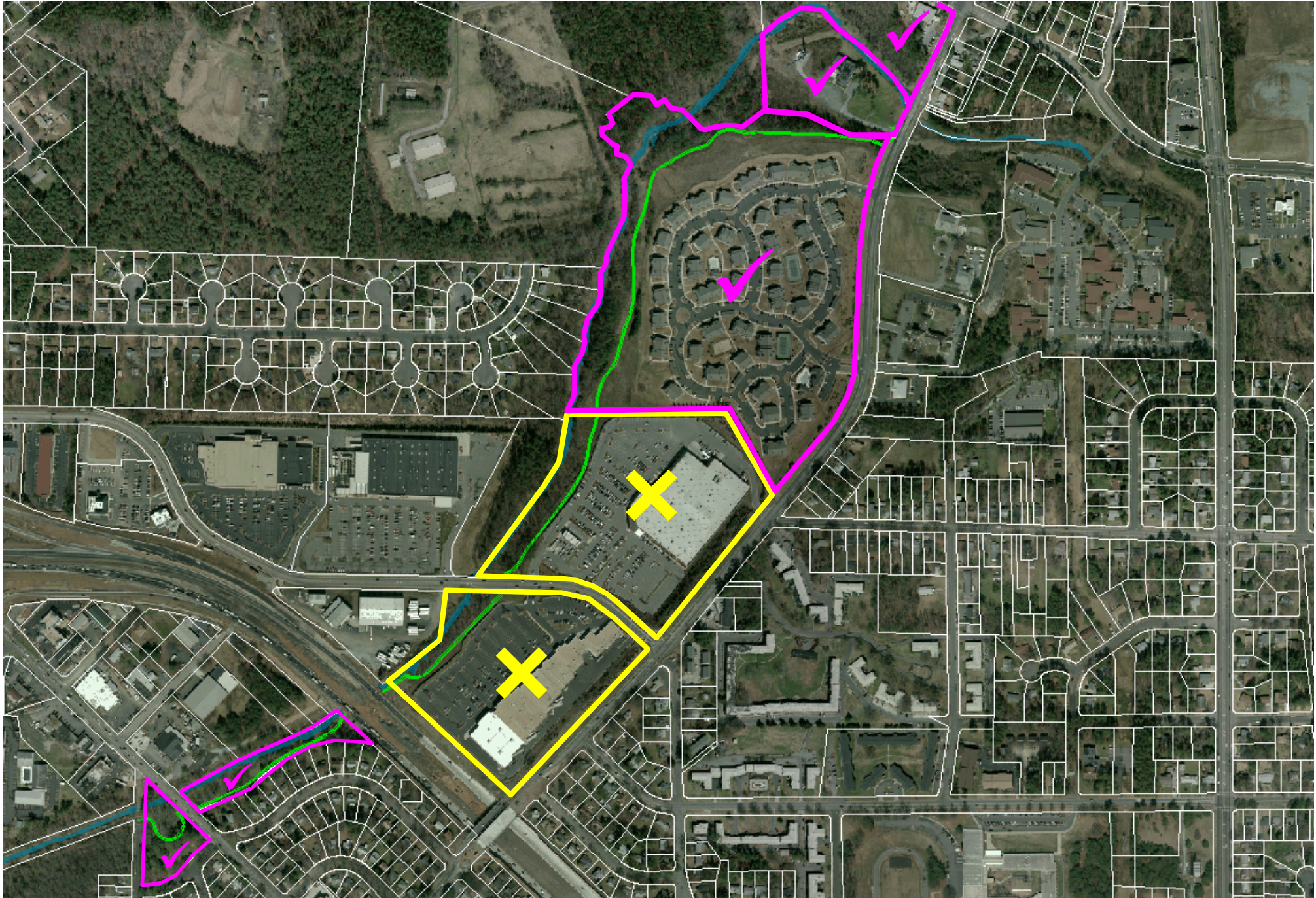


Trail route consolidated onto one willing property. Easements are in place.

Widen sidewalk to 10-feet wide to connect to Stadium Drive and existing greenway.

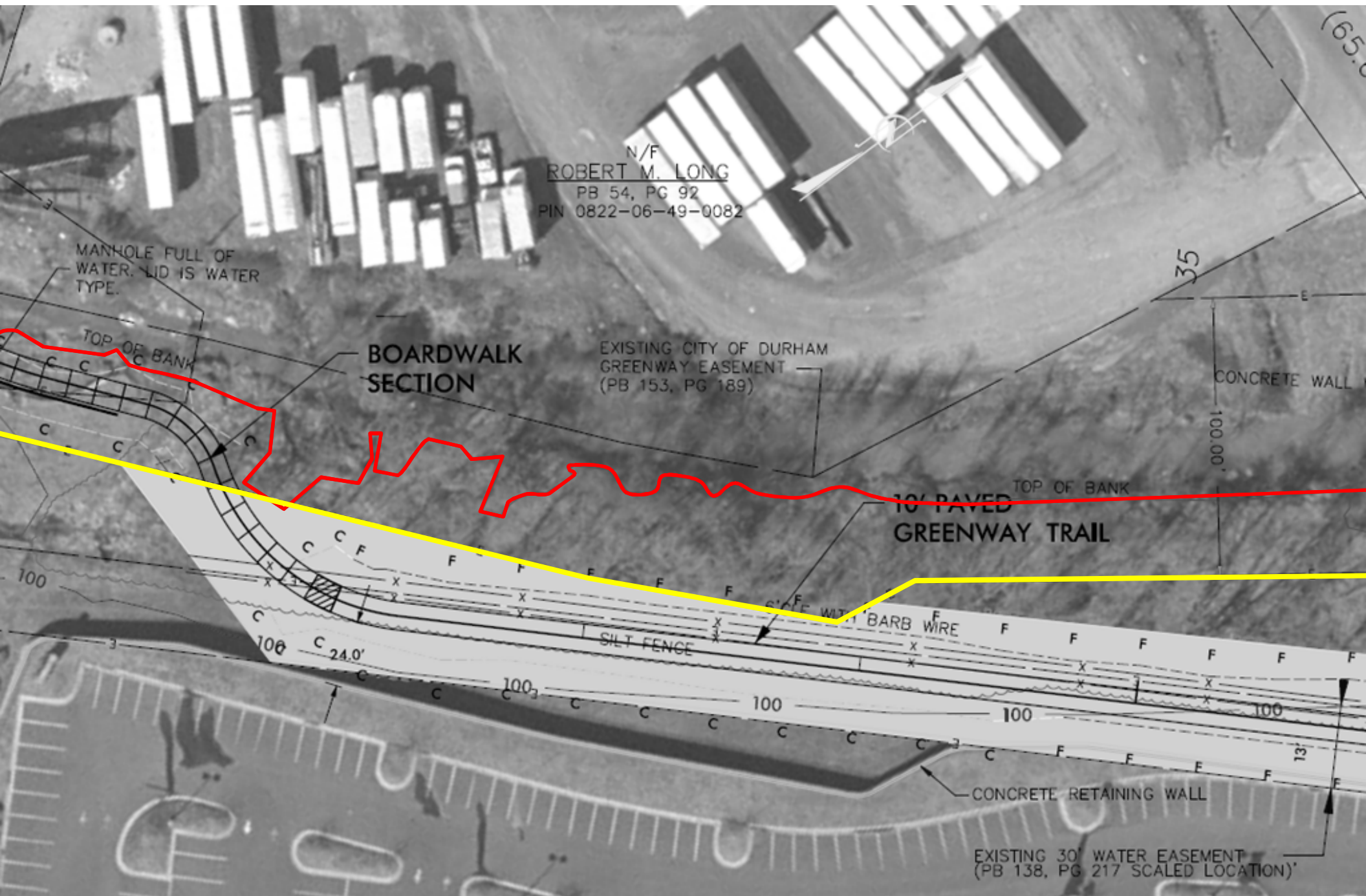
Right of Way Update

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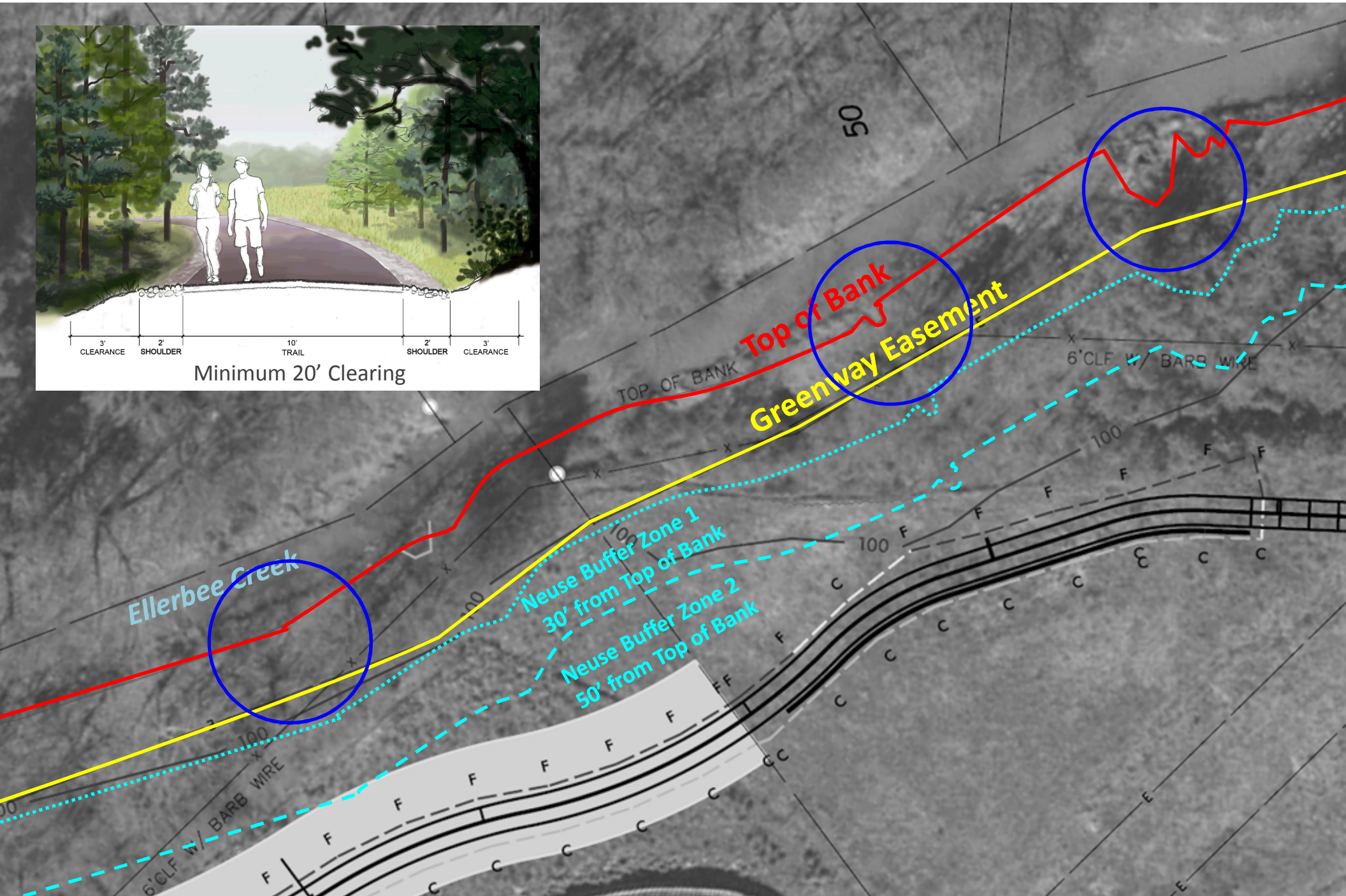
Existing Easement

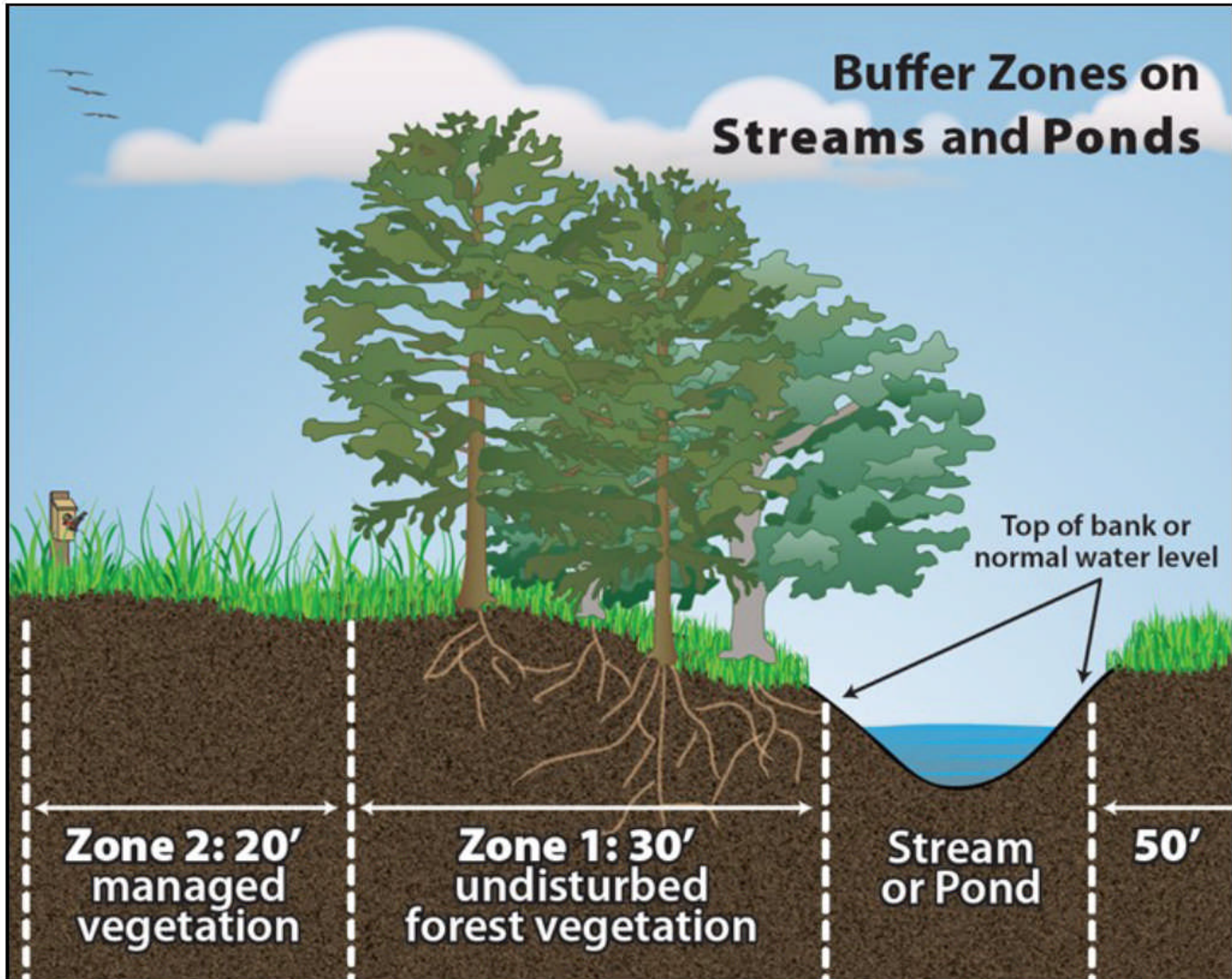
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Use of Existing Easement

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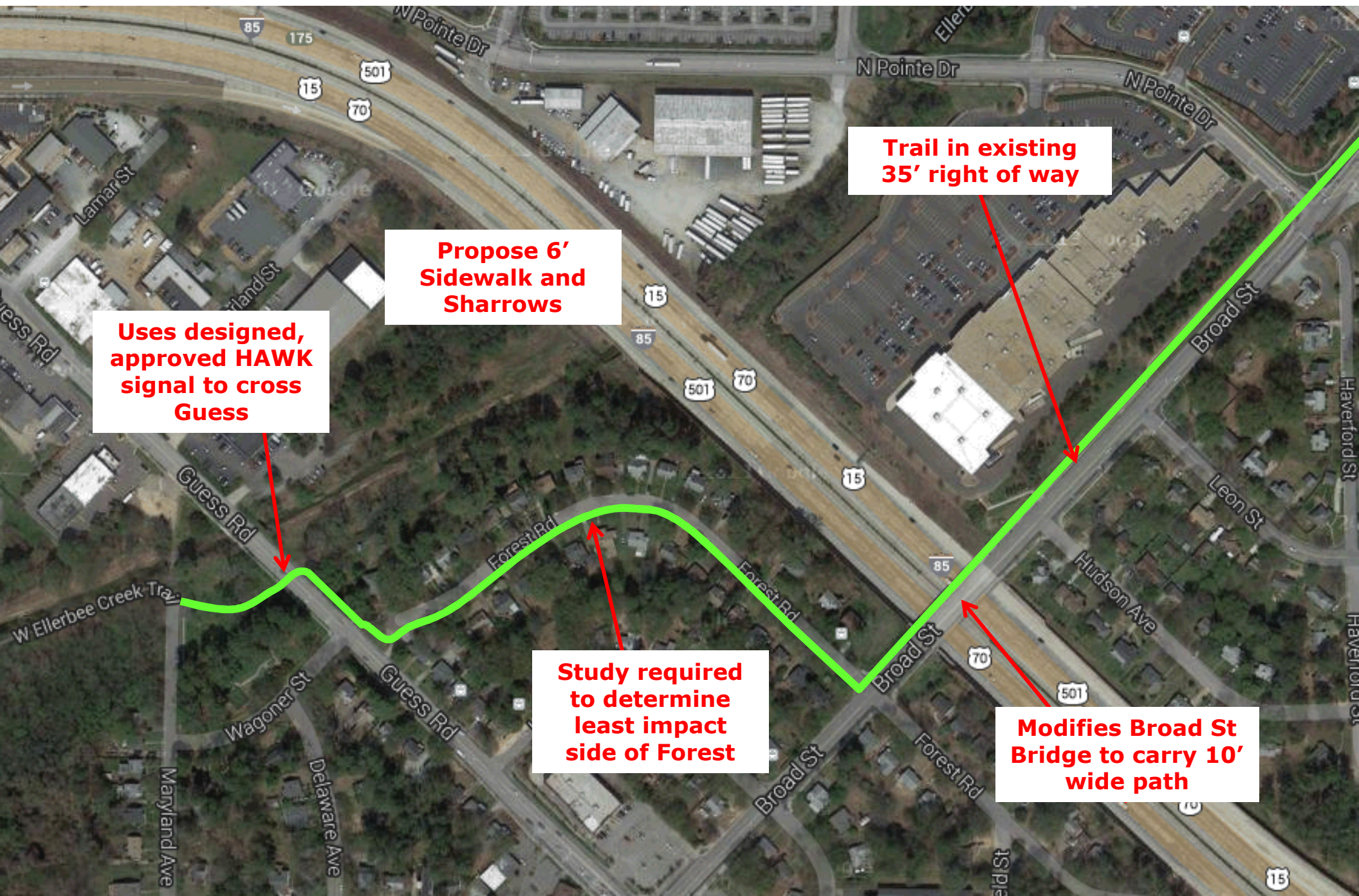




- Alternate - Forest Road to Broad Street Alignment

Forest Road to Broad Street

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**Trail in existing
35' right of way**

**Propose 6'
Sidewalk and
Sharrows**

**Uses designed,
approved HAWK
signal to cross
Guess**

**Study required
to determine
least impact
side of Forest**

**Modifies Broad St
Bridge to carry 10'
wide path**





Crossing of Broad Street Bridge

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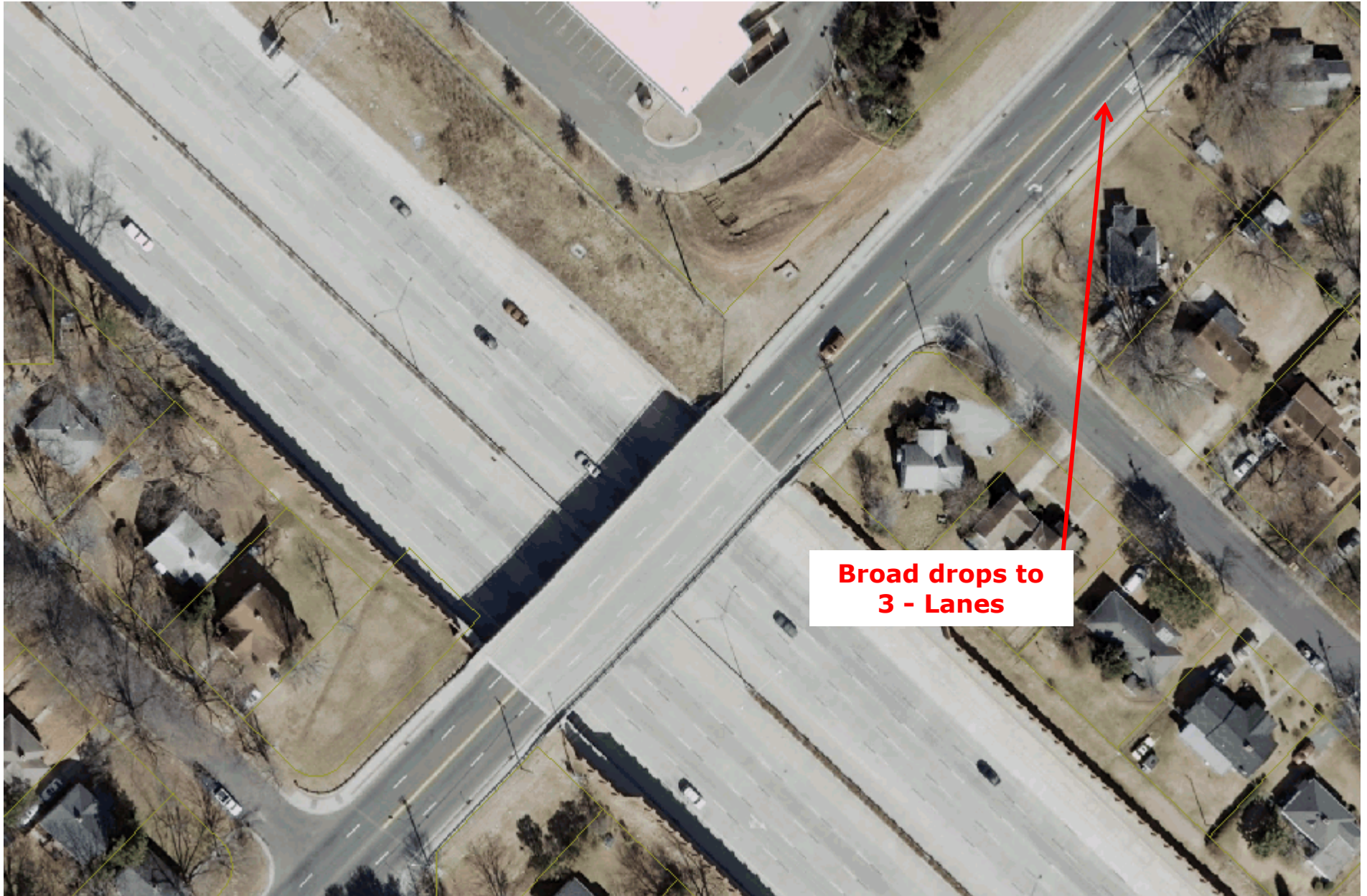


- High pedestrian use observed
- Opportunity to create real bus stop
- Four lanes and easily be reconfigured to three
- Recommend 8-10 wide multi-use path with vertical divider



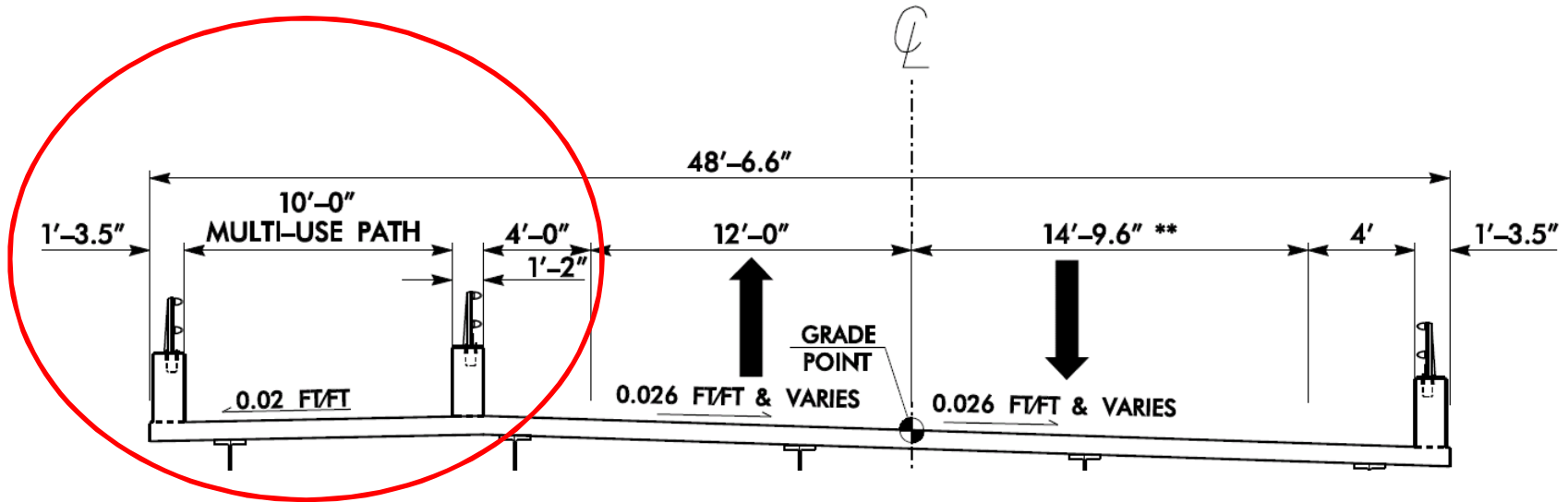
Potential for Lane Consolidation

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Example Typical Section

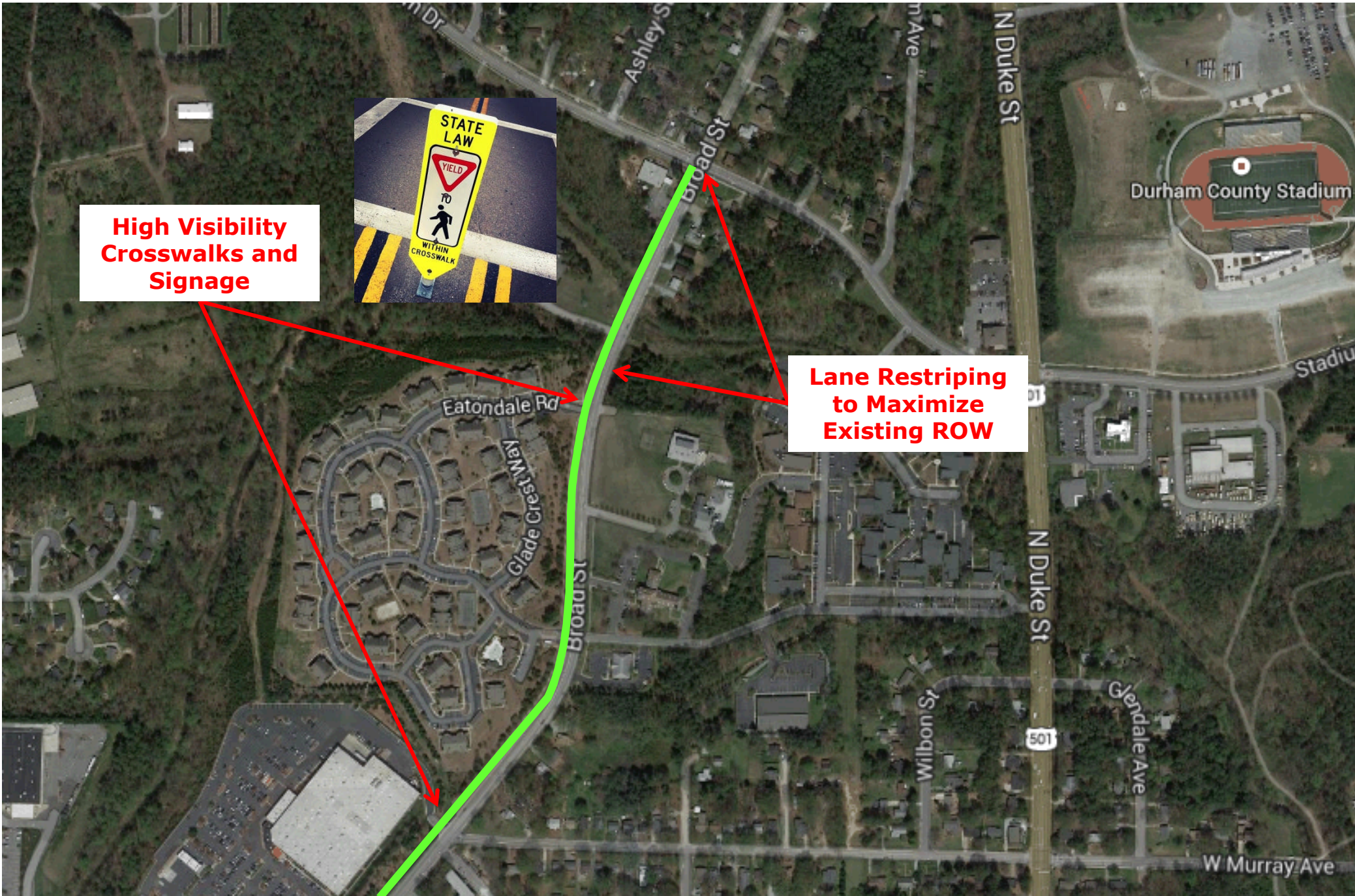
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**High Visibility
Crosswalks and
Signage**

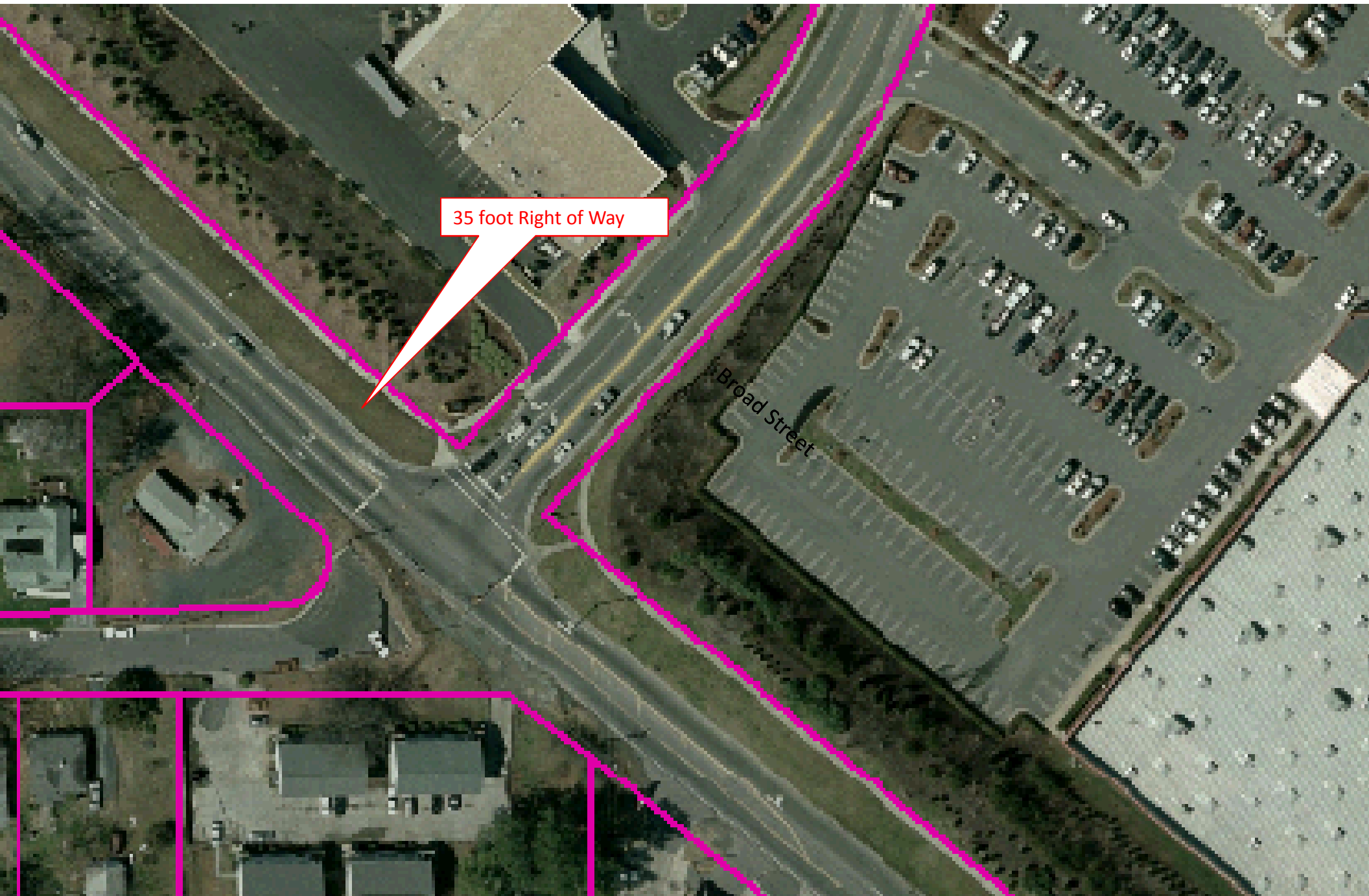


**Lane Restriping
to Maximize
Existing ROW**



Broad Street Right of Way

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35 foot Right of Way

Broad Street

Broad Street Connector

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Broad Street Connector

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Current Professional Services Contract	\$ 248,540
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FY2014 CIP Land Acquisition Budget	\$ 75,000
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Estimated Construction and Additional Professional Services

Creek Alignment	\$1,597,411
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Broad St. Alignment	\$ 916,838
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Note:

Requested CMAQ Funding*	\$1,081,600
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*CMAQ funding available for construction and requires a 20% match from the City. If construction costs are reduced, CMAQ funding will be reduced and the City match will be adjusted accordingly. CMAQ funding is not applicable to Professional Service Fees.

- Decision making point of proceeding with existing trail alignment and acquisition (possibly condemnation) or pursue alternate trail alignment.
- Schedule Analysis
- FY2014 Land Acquisition Budget Status

[illegible]

Alternate Schedule - Broad St. Connector																													
	Calendar 2014												Calendar 2015								Calendar 2016								
	City FY14				City FY15								City FY16																
									Federal FY15								Federal FY16												
	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May	June	July	August	September	October	November	December	January	February	March	April	May
Design/Redesign																													
Authorities Having Jurisdiction Approvals																													
MPO and NCDOT TIP/STIP Approval																													
Municipal Agreement																													
City Council adopts Project/Grant ordinance (local funds committed)																													
NCDOT Certification Process																													
Federal Authorization Process (federal funds committed)																													
Bid Preparation and Advertisement																													
*Construction Schedule: 6 - 7 months, Completion 11/2016																													

Land Acquisition

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Property	Area (SF)	Easement Value @ \$17,500 per acre \$.40 per SF	Title Search	Appraisal and Review Appraisal	Additional Closing Costs	Potential Legal Costs Condemnation
Bed Bath & Beyond Complex	11,761.20	\$0.00 - \$4,704.48	\$1,000.00	\$2,500.00	\$100.00	\$10,000.00
Costco	38,332.80	\$0.00 - \$15,333.12	\$1,000.00	\$2,500.00	\$100.00	\$10,000.00
Bouwfonds*	64,468.80	\$4,000.00 (legal fees)	N/A	N/A	N/A	N/A
TOTAL	114,562.80	\$24,037.60	\$2,000.00	\$5,000.00	\$200.00	\$20,000.00
	Project Total	\$ 51,237.60				
	CIP FY2014 Funding	\$ 75,000.00				

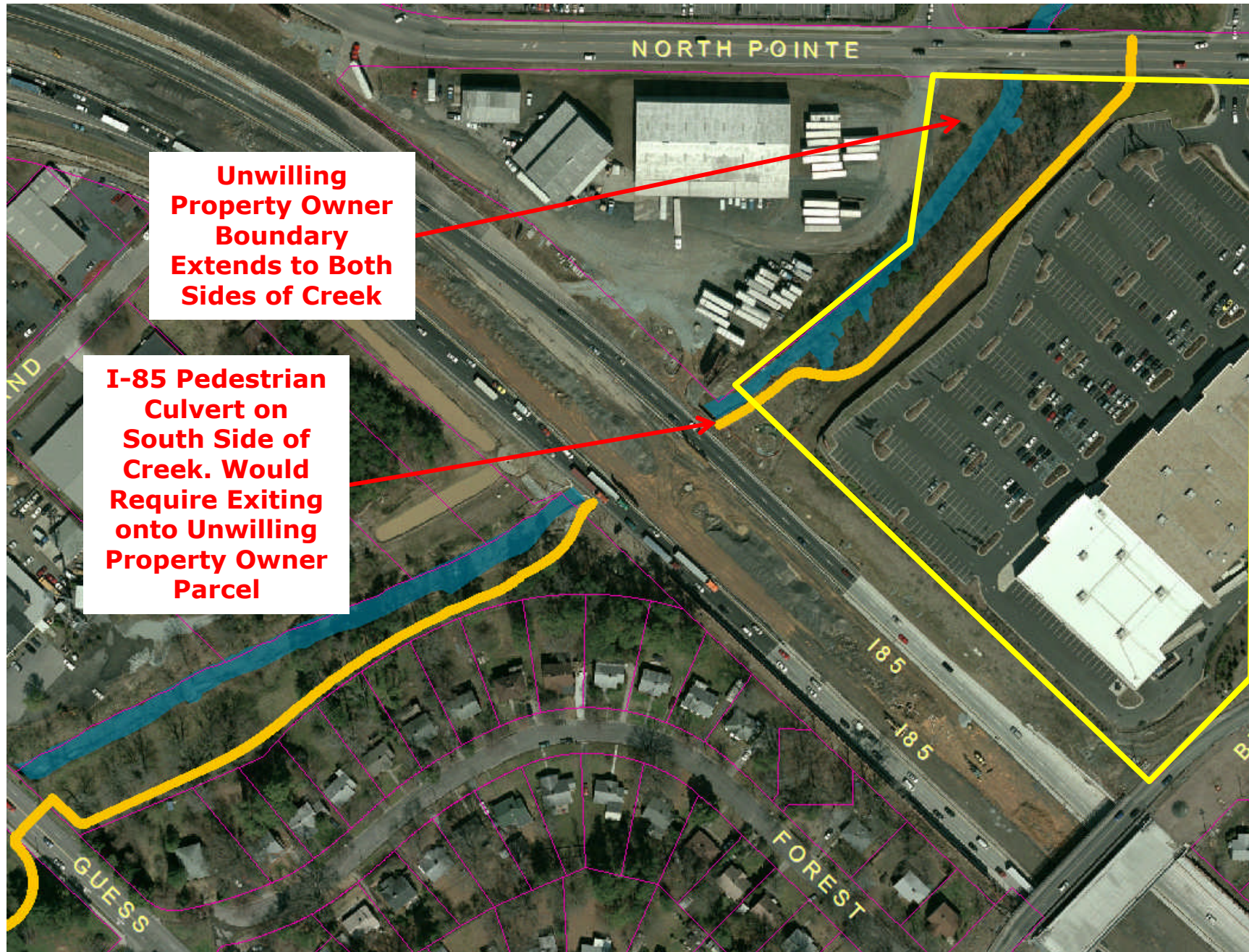
* Estimated easement value \$25,787.52. Bouwfonds has stated they would donate the easements if the City would pay \$4,000 for legal review fees associated with transaction. Bouwfonds is currently reviewing easement option.

- END OF SLIDE PRESENTATION
- The following Slides are provided as support to alternative route investigations

- Option 1 - Opposite Side of Creek
- Option 2 - Behind Noise Wall, Behind Homes on Forest Road
- Option 3 - Along North Side of I-85 to Broad Street

Option 1 - Alignment on Opposite Side of Creek

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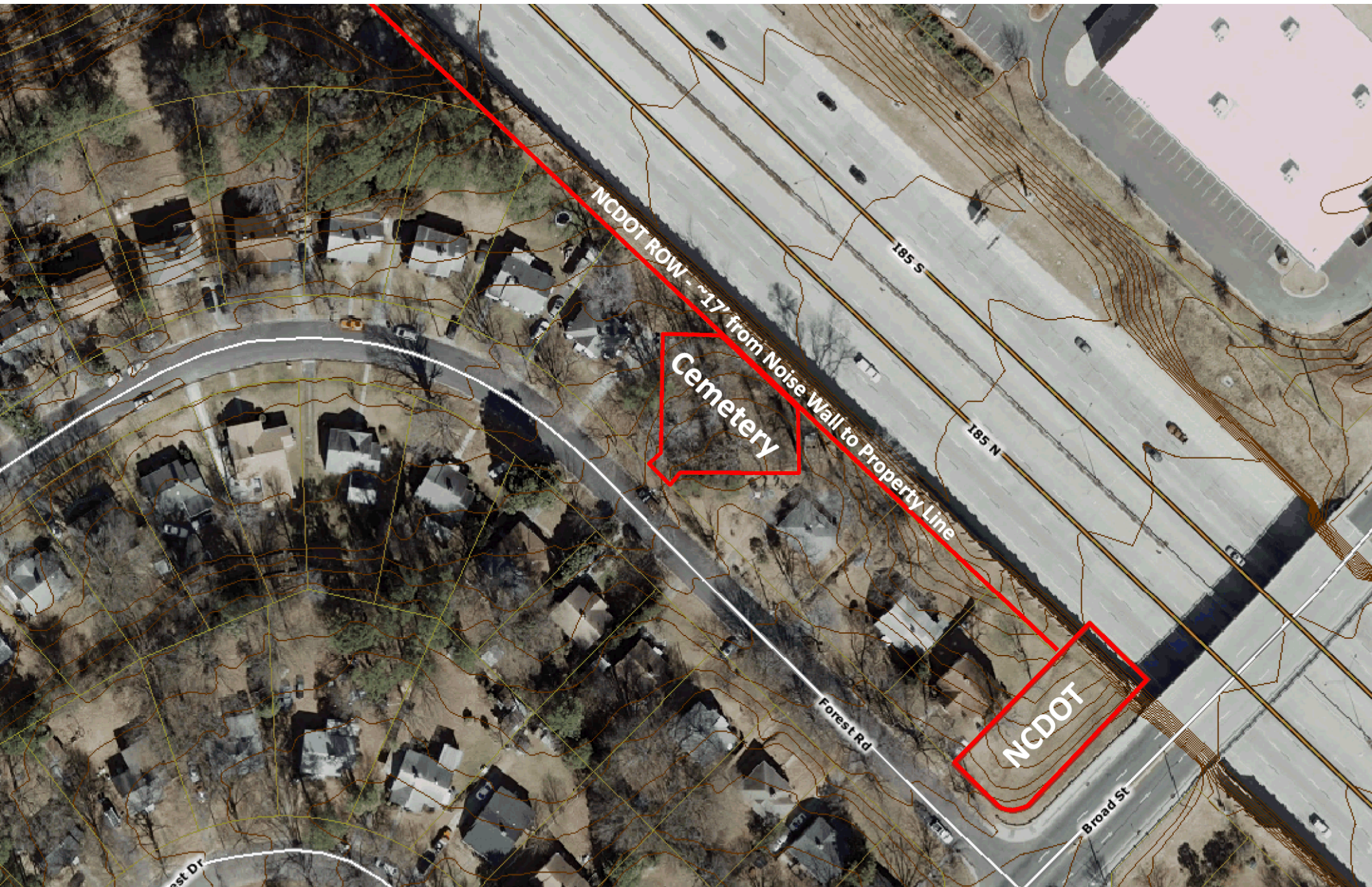
**Unwilling
Property Owner
Boundary
Extends to Both
Sides of Creek**

**I-85 Pedestrian
Culvert on
South Side of
Creek. Would
Require Exiting
onto Unwilling
Property Owner
Parcel**

- ~~Option 1 - Opposite Side of Creek~~
- Option 2 - Behind Noise Wall, Behind Homes on Forest Road
- Option 3 - Along North Side of I-85 to Broad Street
- Option 4 - Along Forest Road to Broad Street

Option 2 - Behind Noise Wall

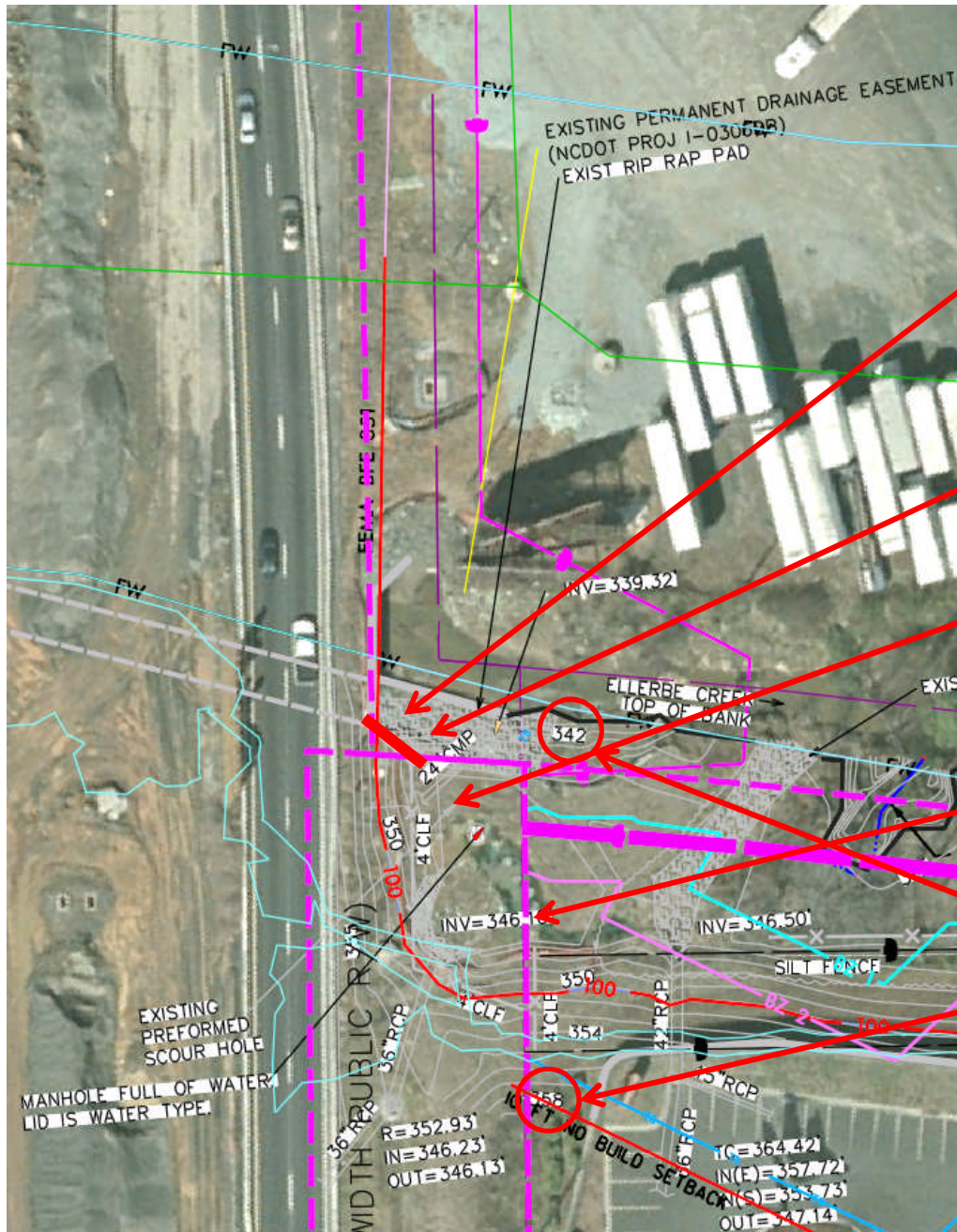
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- ~~• Option 1 - Opposite Side of Creek~~
- ~~• Option 2 - Behind Noise Wall, Behind Homes on Forest Road~~
- Option 3 - Along North Side of I-85 to Broad Street
- Option 4 - Along Forest Road to Broad Street

Option 3 - Northern Approach to I-85 Pedestrian Culvert

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Entrance to Pedestrian Culvert

Wingwall

NCDOT Scour Hole – Must maintain function of this drainage device

Property Line / NCDOT ROW

16' elevation change

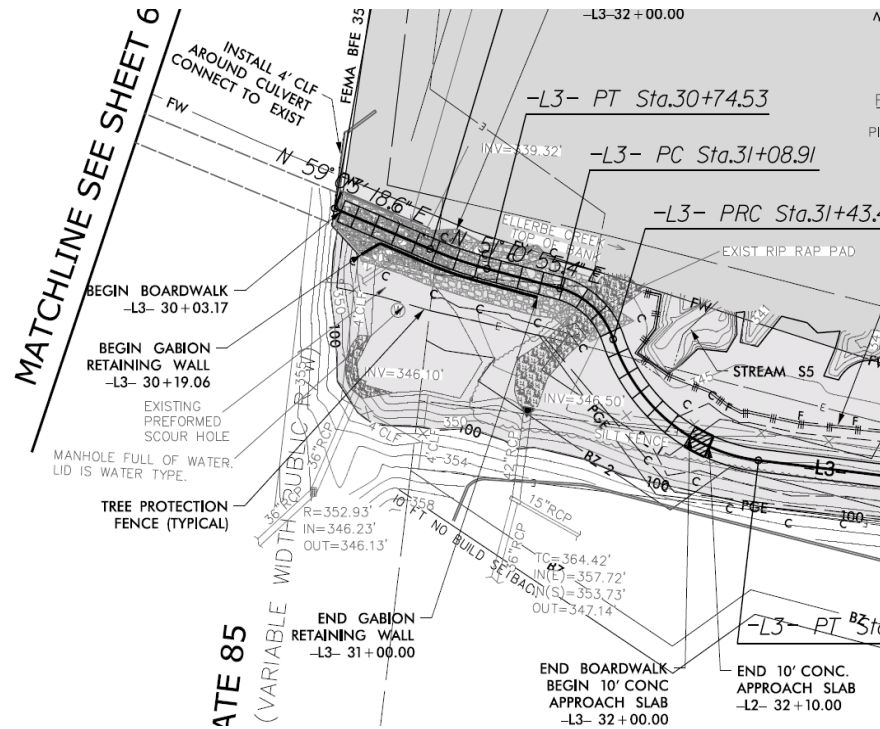
Option 3 - Northern Approach to I-85 Pedestrian Culvert

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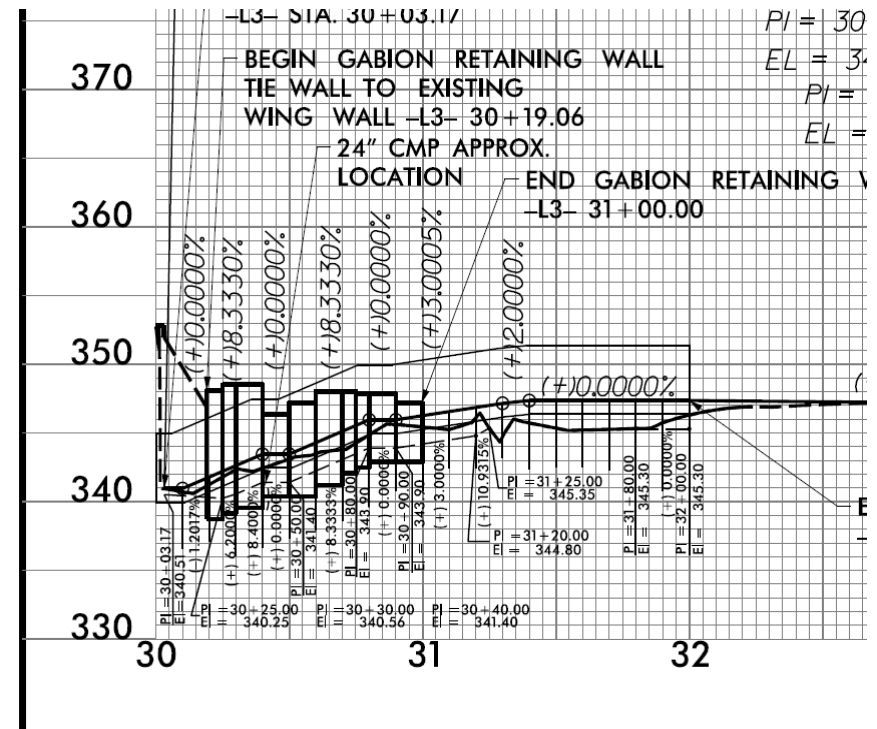


Northern Approach to I-85 Pedestrian Culvert

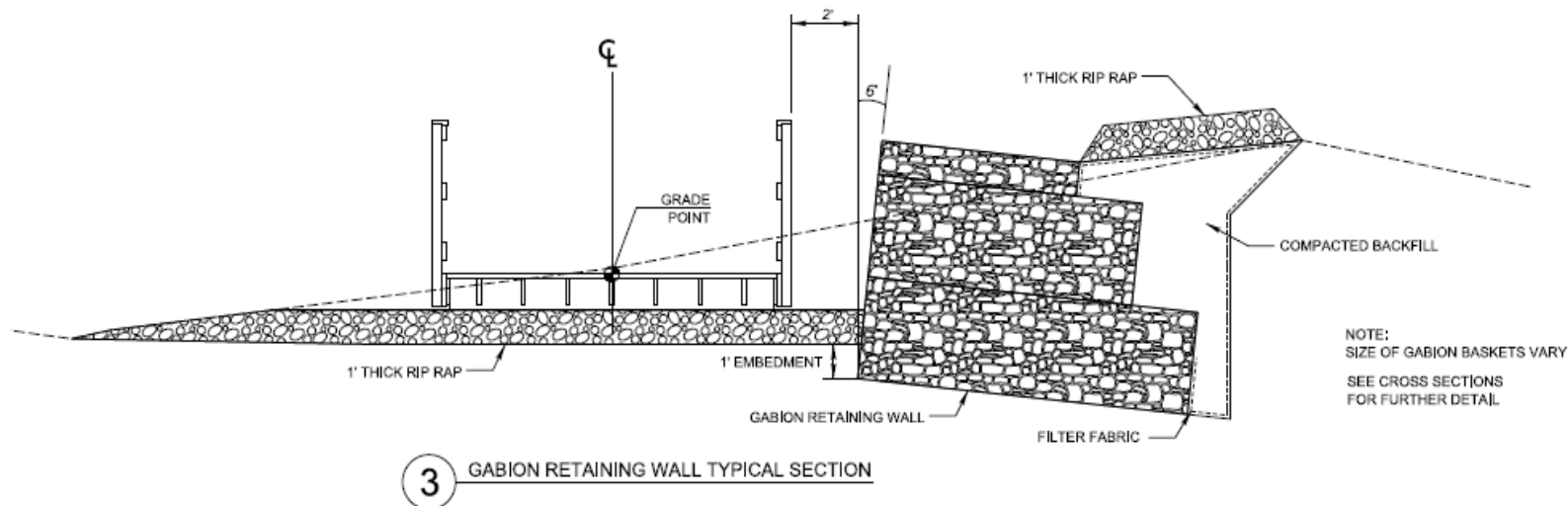
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Plan View – Note gabion wall extends beyond NCDOT ROW



Profile – Note steep grade is unavoidable given drainage constraints.



Gabion Wall Detail – Wall required to maintain drainage of NCDOT I-85 scour hole.

Northern Approach to I-85 Pedestrian Culvert

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Current design is consistent with 1999 Master Plan:

- Existing greenway easement was not adequate to accommodate the trail
- Additional easements would be required
- Trail leaves the creek to avoid steep grades along creek

